

**Abstract**

The invention relates to a bone formation agent of porous calcium phosphate having an isotropic sintered structure and, between the particles of the calcium phosphate, statistically distributed pores in a plurality of discrete size ranges. The bone formation agent has at least two, preferably three, discrete pore size distributions. Its porosity has an irregular geometric shape. The sintered particles of the calcium phosphate have a particle size smaller than 63 µm with a  $d_{50}$  value in the range from 5 to 20 µm. The interconnecting pore share in the overall porosity is limited to pore sizes less than 10 µm. The bone formation agent can be used in the form of a granulate or shaped body for bone regeneration. In the case of granulates, the maximum pore diameters are matched to the granulate diameter. The invention relates also to a method of producing the bone formation agent.